PRELIMINARY PLANNING REPORT 6

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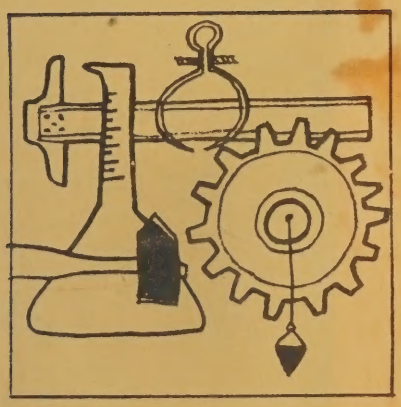

INDUSTRIAL DEVELOPMENT

JULY 1963

A PART OF THE COMPREHENSIVE PLAN REPORT

WHEELING ILLINOIS

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F O R E W O R D

This planning report, the sixth of a series providing background information for the Comprehensive Plan for Wheeling, is based on a variety of primary (field investigations, surveys, etc.) and secondary (published reports, census data, trade studies, etc.) information sources. Facts are presented as they have been found; observations and conclusions have been drawn from these facts in a manner as objective as possible.

It should be remembered that these preliminary studies provide the basis for planning decisions. As such, objective criticism is a primary goal of the studies. Thus, while the consultant feels strongly about the desirable features of Wheeling and its growth potential, nevertheless, he believes that in Wheeling, as in any community, there is room for improvement.

It is urged that all of the preliminary reports receive as wide a circulation as possible among the various Village bodies concerned with planning as well as the civic groups having a community interest in planning, in order that they may: (a) familiarize themselves with the various factors affecting planning in the Wheeling area; (b) become aware of the interrelationships of these factors, their dependence on each other, and the over-all relationship to the well-being of the community; and (c) be prepared to review final plans and act on those plans with a thorough background as to their implications in all phases of the Village's life.

Much of the interviewing and background material for this report was compiled by Mr. Irvin J. Roth, Staff Planner.

Wheeling's industrial development closely parallels its residential growth. The Village's major population growth was initiated in 1955 (see Table 3-2, Preliminary Planning Report No. 3), and in 1956 the establishment of the Ekco-Alcoa Containers, Inc., plant gave the Village its first major impetus to industrial growth. Table 6-1 shows the estimated total industrial growth of the Village in number of plants and employment for the years when sufficient data were available for estimation.

TABLE 6-1. ESTIMATED INDUSTRIAL GROWTH, WHEELING, ILLINOIS, FOR 1955 & 1958-63*

	Plants		Employment	
Year	Number	Annual Increase	Number	Annual Increase
1955	3		58	
-				
-				
1958	13		561	
1959	15	2 (15.4)	623	62 (11.0)
1960	16	1 (6.6)	694	71 (11.4)
1961	21	5 (31.2)	1,106	412 (59.4)
1962	24	3 (14.3)	1,470	364 (32.9)
1963	28	4 (16.6)	1,660	190 (12.9)
Composite 1955-1963		25 (833%)		1,602 (2,760%)

*Estimated from interview information and existing data; excludes contractors, building materials, wholesale establishments, quarrying operations, etc.

Industrial development has concentrated in northern and western sectors of Metropolitan Chicago. During approximately the same period (1955-1962), total employment in the Metropolitan Chicago area showed a net increase of about 6 per cent, while all of suburban Cook County's employment increased about 44 per cent. The northwest sector of Cook County, of which Wheeling is a part, increased by about 206 per cent. The City of Chicago experienced a decrease of about 5 per cent in total employment.**

**Information adapted from "Employed Workers Covered by the Illinois Unemployment Compensation Act 1955-1962," Illinois State Employment Service, Jun. 1963.

INDUSTRIAL DEVELOPMENT

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	Plants		Employment	
Year	Number	Annual Increase	Number	Annual Increase
1955	3		58	
-				
-				
1958	13		341	
1959	17	2 (15.4)	623	61 (11.0)
1960	18	1 (6.0)	694	71 (11.4)
1961	23	5 (31.7)	1,106	412 (59.4)
1962	24	3 (14.3)	1,470	364 (32.9)
1963	28	4 (16.6)	1,660	190 (12.9)
Composite 1955-1963		25 (100%)		1,602 (2,760%)

*Estimated from Interview information and existing data; excludes contractors, building materials, wholesale establishments, quarrying operations, etc.

Industrial development has concentrated in northwest and western sectors of Metropolitan Chicago. During approximately the same period (1955-1962), total employment in the Metropolitan Chicago area showed a net increase of about 6 per cent, while all of northern Cook County's employment increased about 44 per cent. The northwest sector of Cook County, of which Wheeling is a part, increased by about 208 per cent. The City of Chicago experienced a decrease of about 4 per cent in total employment.**

**Information adapted from "Employed Workers Covered by the Illinois Unemployment Compensation Act 1955-1962," Illinois State Employment Service, June 1963.

The increased employment represented in the northwest sector of Cook County illustrates a definite trend to new plant locations in the north to west areas of the metropolitan areas. The mapping of industrial construction over the last twelve years by the Chicago Association of Commerce and Industry, the location of new industrial districts or industrial parks, and information of various development groups verify this preference of industry to locate in the north, northwest, and west suburban areas in proximity to Chicago.

Industrial growth in Wheeling compares favorably with surrounding communities. Table 6-2 compares the estimated industrial growth in number of plants and total employment for Wheeling and the surrounding communities. Growth for Wheeling compares favorably with the increase in number of plants in the survey period and represents the second largest percentage gain in employment during that period.

TABLE 6-2. ESTIMATED INDUSTRIAL EMPLOYMENT AND NUMBER OF COMPANIES FOR WHEELING AND SELECTED COMMUNITIES, 1958 and 1963

	Number of Communities			Employment		
Community	1958	1963	Per cent Increase	1958	1963	Per cent Increase
Arlington Heights	21	26	23.8	876	1,155	31.8
Barrington	19	34	78.9	1,151	5,378*	367.2
Buffalo Grove	-	1	-	-	4	-
Deerfield	10	10	0	1,596	1,862	16.6
Des Plaines	65	69	6.0	5,167**	6,200+**	20.0+**
Elk Grove	-	29	-	-	1,870**	-
Glenview	24	22	-8.4***	714	789	10.5
Highland Park	12	23	91.6	393	607	54.4
Mt. Prospect	12	15	25.0	532	1,521	185.9
Northbrook	12	18	50.0	1,515	1,642	8.3
Northfield	4	9	125.0	310	647	108.7
Palatine	10	16	60.0	379	565	49.0
WHEELING	13	28	115.3	561	1,670	197.6

* Includes one large firm of 2,700 employes.
** Incomplete--figures for 1961.
***Change due to reassignment of plant.
Source: Development from Illinois Manufacturing Directory and from interview information.

About 10 per cent of Wheeling's industrially zoned property is presently being used for industrial purposes. In August, 1962, the Village of Wheeling had zoned approximately 818 acres for industrial use, of which 86 acres were actually being utilized. Similarly, in the total planning area, including Wheeling, some 1,513 acres were zoned and 109 acres were utilized for industrial purposes. (Table 6-3.) Since August, 1962, two annexations totaling approximately 60 acres have been completed; the property involved has been zoned for industrial uses. A third annexation of some 400 acres is pending, carrying a stipulation that it will be zoned for industrial uses.

TABLE 6-3. COMPARISON OF INDUSTRIALLY ZONED AND UTILIZED AREAS IN ACRES FOR WHEELING AND THE PLANNING AREA

	Village of Wheeling		Wheeling Planning Area	
	Acres	Per cent	Acres	Per cent
Area zoned for industry	818	30.6	1,513	11.5
Area proposed for industry (either annexed or under consideration for annexation as industrial property)	460			
Total area zoned & proposed	1,278	42.1	1,953**	14.9
Area utilized for industry*	86	3.2	109	.8
Available property zoned for industrial uses	1,192		1,844	

*Based on areas actually in use August, 1962.
**Approximately 20 acres of the area annexed to the Village were zoned industrially in the County.

The availability of land for future industrial sites under the present Zoning Ordinance is assured. Transposing the presently zoned but vacant industrial properties into actual sites would indicate that some 105 to 500 additional sites are available, depending upon density of development. If the entire area is developed similarly to the Wheeling Industrial Center with an average site size of about 3 acres, the Village could permit some 320 additional sites, while the total planning area would allow about 500 3-acre sites.

The average, however, of all the industrial uses in the Wheeling planning area, based on ownership, is approximately 9 acres per site. Using this figure, some 105 sites are available in the Village and 160 sites in the total planning area. This potential development also includes use of about 20 per cent of the total zoned area to be used for roads and railroad spurs as well as land which, because of surface water or other problems, is not usable.

Wheeling's industrial land uses vary in location and character. Industrial uses are considered here in a broad sense and comprise virtually all operations involved in making, manufacturing, or processing a product, as distinguished from retail business or office types of activity. For example, in addition to manufacturing operations, industrial uses would include quarries, contractors' storage yards, and warehouse distribution facilities.

Historically, the terms "light" and "heavy" industry have been used. However, within the context of the existing Zoning Ordinance and the proposed amendments relating to industrial districts, no distinction is made in the uses permitted; all are covered by the performance standards controlling such nuisances as smoke, dirt, vibration, noise, etc. Therefore, classification by "heavy" and "light" was not utilized.

The distinction between industry permitted in the various districts proposed is based on (1) outside storage and (2) degree of application of the performance standards. In Figure 6-4, "Industrially Zoned and Utilized Areas", outside storage is the distinction between industrial types, or, in the case of quarries, an outside operation is an integral part of the operation. In addition, segments of the industrially zoned land subject to flooding have been indicated, as shown on the appropriate United States Geological Survey maps.

The extent of areas shown in Figure 6-4 as having experienced flooding in the past and therefore in the flood hazard area emphasizes the relatively level nature of the Wheeling landscape. For development purposes, the terrain is considered level and generally is composed of stable soils and sub-soils. However, throughout the flood hazard areas there are limited areas of unstable sub-soils; for example, the area west of the Meadowbrook subdivision which is recognized as a bog that will present construction problems for any prospective

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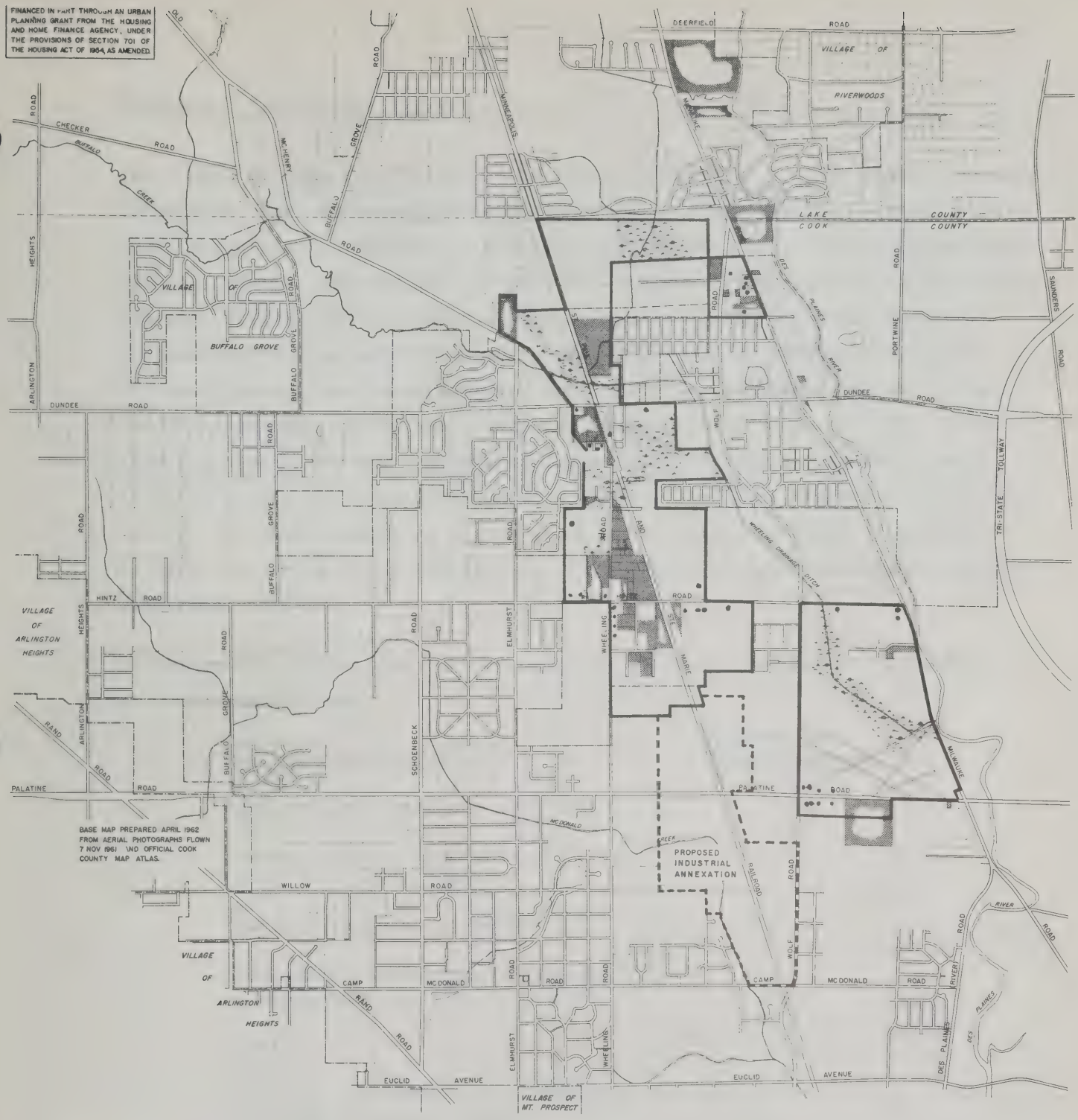


AREA ZONED

AREA UTILIZED

AREA UTILIZED (OPEN STORAGE OR OPERATION)

NON-INDUSTRIAL STRUCTURE

FLOOD HAZARD AREA

INDUSTRIALLY ZONED AND UTILIZED AREAS

STANTON AND ROCKWELL ASSOCIATES
PLANNING CONSULTANTS, CHICAGO

1/4 MILE 1/2 MILE 3/4 MILE 1 MILE
0 1,000 2,000 3,000 4,000 5,000 6,000 ft

WHEELING, ILLINOIS AND ENVIRONS

FIGURE 6-4

use. Part of this area is currently being utilized as a flood water reservoir. The modern, low, masonry-faced manufacturing building typifies present industrial structures in Wheeling. Although they do not reflect outstanding architectural design, none of the recently built plants is unpleasent in appearance. The older plants and structures, used primarily for contractors' storage purposes,are not as well designed. Some business type buildings in groups of retail stores are being utilized for industrial purposes, and in at least two instances the operations are inside residential structures. The Wheeling planning area has a wide variety of industrial activities, the most common of which is the fabricating of metal products, including ornamental iron fabricating. An equal number of plants produce electrical machinery, appliances, or equipment and plastic fabricating, with five times as many employes in the electrical phases.

Following is a tabulation of the number of plants or operations by general products manufacture:

Type of Establishments	Number of Establishments
Food and food products	3
Lumber and Wood products (excludes lumber yards)	2
Fabricating metal products	10
Electrical machinery, appliances, or equipment	5
Plastics	5
Miscellaneous (printing, business services, household goods)	4
Quarries (inoperative)	4
Warehousing or distribution centers	4
Contractors' or materials yards (open storage)	6

Wheeling's larger plants have a wide range of site sizes and employment characteristics. Extensive data on Wheeling's larger firms (employing 15 or more) were developed through a review of existing data, photographs, public records, summarizing information, and by personal interviews with company management. Basic information was obtained to determine the larger firms' characteristics of development. Table 6-5 lists the 18 largest employers in the planning area by approximate ground area of the plant structure and relates this to number of employes and to site size.

TABLE 6-5. DENSITY CHARACTERISTICS--WHEELING'S LARGEST ESTABLISHMENTS

Plant	Approximate Ground Area of Structure* (square feet)	Site Area in A.	Number of Employes	Ground Area Ratio**	Employes per site acre	Employes per 1000 ft. of Structure
A	235,000	38.0	370	1:7	9.7	1.57
B	110,900	5.1	400	1:2	78.2	3.60
C	88,200	4.8	200	1:2.4	41.4	2.27
D	46,800	42.8	70	1:39.7	1.6	1.50
E	43,800	2.5	150	1:2.5	60.0	3.42
F	42,700	2.7	80	1:2.7	29.5	1.87
G	36,000	2.9	62	1:3.5	21.0	1.72
H	34,000	2.7	60	1:3.5	22.6	1.76
I	27,000	4.2	25	1:6.8	4.2	.93
J	26,000	1.2	45	1:2	37.0	1.73
K	17,800	1.6	40	1:3.9	25.4	2.25
L	16,900	1.9	120	1:4.9	62.0	7.1
M	14,500	4.6	20	1:14	4.2	1.37
N	13,400	1.33	-	1:4.3	-	-
O	12,900	1.2	-	1:4	-	-
P	12,500	2.1	33	1:7.3	15.0	2.64
Q	12,000	1.0	60	1:3.7	59.0	5.00
R	3,200	.5	20	1:6.7	40.0	6.25

*Ground area actually covered by structure; may be less than actual floor area of structure if multiple story plant.

**Ratio of ground area of structure to site area.

Generally, the plants with the smallest ratio of structure to land area (1:2) had a percentage of land coverage approaching 50 per cent. The proposed zoning ordinance allows a 60 per cent coverage of land which would require a land area ratio of 1:1.66.

From the employe density of the structures, those plants which handle a small product or which are used for assembly or packaging, can be readily picked out because of the relatively high number of employes per 1,000 square feet of plant ground area.

Interviews give clues to factors favorable to continued industrial growth. The management of 15 of Wheeling's 18 industrial firms employing more than 15 persons were interviewed for their comments on:

(1) reasons for their firms' locating in Wheeling and their previous location,

(2) relationship of present plant to markets and raw materials,

(3) labor criteria, as to quantity and quality, and

(4) where their employes live (an estimate).

The firms interviewed, having more than 15 employes, were among the following:

Establishment	Product	Number of Employes
Cerc Manufacturing Co.	Special machinery	33
Chicago Commutator Inc.	Electric comm.	45
Eddy Stoker Corp.	Stokers	25
Ekco-Alcoa Containers, Inc.	Alum. foil containers	370
Illinois Lock Co.	Locks	150
International Iron Works	Steel fabric.	60
Kainer Wesco	Marine hardware	80
Marylord Bakeries	Frozen cakes	60
Muntz T.V.	Television sets	400
Mykroy Inc.	Insulators	20
Plastic Pak	Plastic bags	40
Precision Corp.	Plastic packaging	40
Resionite Corp.	Packaging	120
Rupert Parachute Co.	Belts, straps	20
Sierra Metals Corp.	High heat alloys	70
Televiso Corporation	Electronic inst.	120
Tower Packaging Co.	Packaging products	40
General Blower	Industrial fans	62

Table 6-6 indicates the opinions of the interviewed management personnel of the major Wheeling establishments. This is a composite rating of the 15 responses to each potential factor of location of the plant and living conditions in Wheeling.

TABLE 6-6. COMPOSITE RATINGS OF OPINIONS OF INTERVIEWED MANAGEMENT PERSONNEL, MAJOR WHEELING AREA INDUSTRIAL ESTABLISHMENTS

	Poor	Fair	Good	Excellent
Public transportation available to and from area	X			
Quantity of labor available			X	
Quality of labor available		X to	X	
Water Supply		X		
Sewage-handling capacity		X		
Service on shipment of materials			X	
Raw land costs		X		
Highway network to area			X to	X
Living conditions in area		X		
Community attitude towards industry			X	
Taxes in relation to services received	X			
Schools - quality			X	
Industrial zoning regulations		X		

Major firms depend on the metropolitan area and the midwest region for markets, raw material, and labor. Raw materials or inputs for most of the firms consist primarily of semi-finished goods and components. The majority of the inputs, based on value, come from the Chicago Metropolitan area. Some high-weight but low-value raw materials come from producing areas located far from Chicago; for example, mica from New England. However, the total value of these high-weight, low-value raw materials does not exceed over 15 per cent. Ekco-Alcoa Containers, Inc. is the only establishment which receives over half of its inputs from outside the Chicago Metropolitan area. It receives semi-finished aluminum from Bettendorf, Iowa.

The major firms generally sell 20 per cent of the products produced in the immediate metropolitan area, while about 70 per cent of the products are sold within a radius of 500 miles of Chicago. Shipments to the east and west coasts amount to approximately 20 per cent. The local market area is not an initial or formal recipient of any of the goods produced by the major firms.

Employment in the 15 major firms interviewed represents over 90 per cent of the total industrial employment in Wheeling. Males represent 58 per cent of the employed working force in Wheeling plants, while females represent 42 per cent. One establishment employs one female (2 per cent) to 33 males, while others have as high as 60 per cent females to 40 per cent males. The larger the establishment, the higher the percentage of women employes tends to be.

Professional and management personnel average approximately 12 per cent of total employment, the ratio ranging from 9 out of 150 employes to 34 out of 120 employes. Clerical help averages approximately 8 per cent, varying between 5 and 13 per cent.

The classification of "skilled workers" is somewhat nebulous as the fringe areas between the semi-skilled and skilled workers classifications vary slightly from establishment to establishment. Skilled workers average about 40 per cent of the total employment, with variations of 10 per cent skilled out of 200 employes to 76 per cent skilled out of 120 employes. Semi-skilled workers and laborers form approximately 40 per cent of the work force. Establishments vary between 12 per cent semi-skilled and laborers out of a total employment of 33 to approximately 81 per cent semi-skilled and laborers out of 160 employes.

Most of the managerial personnel of the establishments interviewed stated that although business was slow at the time, (summer, 1963) more hiring would be done when business picked up. They stated that they would hire primarily semi-skilled females from the surrounding areas.

Most of those employed in the study area live outside of Wheeling. The majority of the employes tend to follow their establishments when they move. For this reason, a number of employes commute from Chicago. (Approximately 18 per cent of the employes live in Chicago). The longer the establishment has

been in the study area, the lower its number of employe-commuters from Chicago. Most of the employes who have followed their establishments move within three years to a location closer to Wheeling but not necessarily into Wheeling. Employes who live near but outside of Wheeling are in such communities as Buffalo Grove and Prospect Heights. Data from the Chicago Area Transportation Study indicate that four times as many trips are made out of the planning area to work as are made into the area for work purposes. Over 96 per cent of the trips into and out of the area for work purposes are by automobile.

One establishment imported over 50 per cent of its employes from Puerto Rico. Having settled near the establishment, they are working as unskilled laborers.

Less than 8 per cent of those employed in industrial establishments in the study area live in Wheeling. Most of the executive personnel live in areas along the North Shore east of Wheeling.

The interviews established that the quality of work was good, as reflected by productivity, but that quantity--in terms of number of available workers--was only fair, in jobs requiring some skills, to good in non-skilled jobs. This latter group is comprised of women primarily. The presence of workers with desired skills is illustrated in Preliminary Planning Report No. 3, Table 3, "Labor Force Occupations", which placed 51.5 per cent of the labor force in the "Craftsmen, Foreman, Operatives and Kindred Worker" classifications. Similarly, Table 3-13 of the same report stated that about 35 per cent of Wheeling's employed are in durable and non-durable goods manufacture.

Also about 5 per cent more women are in Wheeling's labor force than is generally anticipated in other urban communities in Illinois. (Table 3-11, Preliminary Planning Report No. 3).

Location factors are really relocation factors for the majority of Wheeling's major firms. All of the major establishments (those with over 15 employes) have come into the study area since 1955. The first such establishment to come to Wheeling that year was the Chicago Commutator Company. The second largest firm now in the area, Ekco-Alcoa Containers, Inc., came in 1956. Firms

not in the Wheeling Industrial Center have tended to locate in Wheeling for at least three years. The Wheeling Industrial Center contains 7 firms, all of which have come within the last three years.

Establishments in Wheeling have been drawn mainly from the City of Chicago. Eight of the major establishments have come from Chicago; 4 came from areas around Chicago: Cicero, Evanston, Des Plaines and Skokie. Three establishments stated that their present site was their original location. Information was unattainable as to the former locations of the 2 establishments at which no managerial personnel were interviewed.

The reasons establishments have come to Wheeling are many. They include such varied reasons as no union activity, a small town location near Chicago and, for those establishments in the Wheeling Industrial Center, the availability of a site and buildings on a lease basis.

Wheeling's attraction over other areas does not seem to be fully known by those in managerial positions in Wheeling's establishments. The reasons given for coming to Wheeling did not seem to indicate that a large amount of consideration was given to comparisons of Wheeling to other areas. Managerial personnel interviewed did not remember many areas which were closely investigated for possible locations. It was stated by some interviewees that they had not looked critically at many other areas. However, such areas as Central Ohio and Des Plaines, Illinois had been carefully considered.

One plant was established in Wheeling because it was close to its original location and had a site and building available on a workable lease arrangement. A recent statewide survey* summarized the evaluation of 722 Illinois firms as to the desirability of Illinois location factors in the following:

*Plans and Problems of Illinois Industry, Economic Development Committee, Illinois State Chamber of Commerce, February, 1963.

Location Factor	Per Cent Favorable	Unfavorable	Not Significant	Not Rated
1. Access to raw materials	62.6	7.3	19.4	10.7
2. Location of markets	66.3	7.5	16.3	9.8
3. Availability of capital	45.0	4.6	30.3	20.1
4. Wage rates	48.5	27.6	9.8	14.1
5. Productivity of workers	59.0	16.9	8.0	16.1
6. Attitude of organized labor	31.4	24.0	20.9	23.7
7. Transportation facilities	72.0	10.4	7.2	10.4
8. State business taxes	35.5	23.3	18.7	22.6
9. Local taxes	42.4	21.1	16.5	20.1
10. Community attitude toward industry	69.1	6.5	10.5	13.9
11. Community facilities (water, sewer, streets, etc.)	65.0	10.7	8.9	15.5
12. Business climate in Illinois	63.2	5.7	10.9	20.2

These location factors for Illinois can be compared to a list of deciding industrial location factors, ranked in order of importance, by a survey of "new" plants in North Carolina. (See Table 6-7.)

The North Carolina survey indicates the slight difference placed on location factors by firms relocating in the same city and firms choosing an entirely new location. A majority of the large Wheeling firms are actually relocations within the Chicago Metropolitan area, while only 3 of the interviewed firms indicated that this was their initial location. The homes of owners or executives in the firms ranked high as a location factor in relocations within the same area. This factor never is a consideration in the initial location of a new firm to the area, although the "character of the City" was listed as a factor.

Markets, labor, transportation, and raw materials are principal factors of location, but these factors will vary in importance, depending upon the company. For instance, a firm employing hundreds of people will be interested in labor, its availability, cost, union activity, and skills required. A small employer, however, may be more concerned with proximity to the markets for his products in order to reduce distribution costs. Housewives, with lower skills and lower pay scales, have helped attract some of the firms to the area, as interview responses indicated that most of the firms in the area tend to require

TABLE 6-7. RANKING OF DECIDING INDUSTRIAL LOCATION FACTORS

Rank	All survey plants	Plants originating outside city	Industrial development officials
1	Markets	Markets	Labor
2	Labor	Labor	Markets
3	Owner's home	Transportation	Character of city
4	Transportation	Suitable site	Water and sewer
5	Raw materials	Raw materials	Suitable building
6	Suitable site	Character of city	Transportation
7	Suitable building for rent	Suitable building for rent	Suitable site
8	Character of city	Water and sewer	Local tax climate
9	Water and sewer	Special inducements	Owner's home city
10	Special inducements	Police and fire protection	Police and fire protection
11	Local tax climate	Local tax climate	Local government reputation
12	Police and fire protection	Local government reputation	
13	Local government reputation	Planning and zoning	
14	Planning and zoning		

Source: Industry and City Government, Institute of Government, University of North Carolina, 1963, by Ruth L. Mace.

a large supply of semi-skilled and skilled workers. Although most of the male residents tend to work outside of the study area, a large supply of male labor, much of it highly-skilled, is available in the surrounding area.

"Leasing" is an attraction to industry. A principal factor for locating in the Wheeling Industrial Center was the ability to lease rather than to purchase or to build. The leasing arrangements offer tax advantages to firms not having large sums of money available; with a small capital outlay, they can acquire adequate plant space and invest existing funds in other phases of business. The rapid growth in three years of the Wheeling Industrial Center attests to the desirability of leasing, but the effects of leasing on a company's stability cannot be determined in this limited experience. (Two firms in the Wheeling Industrial Center have ceased operation, while one other major firm--outside the center and owning its own building--has ceased its Wheeling operation). However, the leasing arrangement does allow greater flexibility in plant facilities for the leasing firm.

Transportation a "plus" factor for Wheeling. Even though the Wheeling area is outside the railroads' "Chicago Switching District" and the trucking "Chicago Commercial Zone", this has not been a negative factor to the plants located within Wheeling. Elk Grove, Illinois, which is one of the most successful of industrial developments, is also outside both the switching district and the commercial zone. Even with the penalty (1 to 2 per cent) for transportation to points south and east of Chicago, transportation of raw materials and finished products to and from Wheeling was listed as a favorable factor for locating in Wheeling. The "good to excellent" rating for transportation given by management does not, however, apply to transportation of people. No means of mass transit is available within Wheeling, and residents must provide their own transportation by automobile or join in car-pools for transportation within the area. Limited bus service is available to the Chicago "loop". Access to the railroad is available to all of the plant sites in the Village through the use of railroad easements. However, Ekco-Alcoa has the only spur track at the present time. Trucking is the principal method used for movement of goods.

Wheeling wants industrial growth. Statements by political leaders and the consideration of the various Village Planning groups, the Plan Commission and Board of Appeals, have strongly supported the principle and desire for additional industrial development. Positive action has been taken by the Village President and Board of Trustees in working out agreements for the financing of sewer and water facilities and in attempting to meet surface water problems. The close working relationship of the Village planning groups with industrial subdividers and the preparation of industrial zoning provisions meeting with their approval should definitely encourage industrial growth.

A committee of citizens formed Operation W.I.N. (Wheeling's Industrial Needs) with the expressed purpose of finding ways to attract industry to Wheeling in June, 1961. Its members numbered approximately 15. The committee disbanded formally in June, 1962, due to the "public apathy of most of the residents of Wheeling". Its program never really materialized, although through a poll it determined that most of the residents of Wheeling felt there was a need for light industry in the Village to reduce the tax load.

Of the responses to a public opinion survey, "Project Profile", conducted by the Wheeling Jaycees in 1961, 93.7 per cent thought "new or additional business and industrial expension is needed in Wheeling". To the question, "What should land be used for?", 47.2 per cent of the responses indicated "light industry" and another 10 per cent indicated "heavy industry", or a total of 57.2 per cent desiring industrial expansion.

The basic desire reflected in citizens' comments and illustrated by the action of the various Village Boards is the need for expansion of the tax base primarily for school purposes. Much of the progress report of "Operation W.I.N." was an evaluation of the effect of additional industrial property in lowering the tax rate and raising the assessed valuation per pupil in the operation of the school system (District No. 21).

Advantages which Wheeling feels it will receive from increased industrial growth are:

1. More jobs for area residents.
2. Improved appearance and increased property value through attractively built plants.
3. Talented workers brought into the community by industrial management.
4. Added tax revenue without adding pupils to the school system.

Wheeling's municipal services will need expansion and improvement. Wheeling's municipal services provide water, sanitary sewer, storm drainage, and traffic circulation facilities. Although these will be discussed in detail in other preliminary plan reports, major problems are noted.

Water: The Village is presently searching for water supply sources to supplement the present three wells, to maintain the present supply, and to meet anticipated needs. An emergency source of water is the Ekco-Alcoa well, the same size as the Village's largest well. Industry accounts for about 10 per cent of the water used in the Village.

The present water distribution system will require reinforcing to supply adequate water to new industrial areas in quantities sufficient for fire protection purposes. Supplemental storage facilities as well as more stable water sources will be required as the water consumption increases. The Village's engineers have recommended going to Lake Michigan for the source.

Sanitary Sewers: The Village operates the sanitary sewage collection system, delivering the sewage to the Metropolitan Sanitary District's trunk sewer for treatment at their plants. Future growth of the Village, both residential and industrial, will depend upon the cooperation of the Metropolitan Sanitary District in scheduling and constructing trunk sewers to serve the new areas and to provide treatment capacity. The present plants, which are to be replaced, are operating at near design capacity.

Storm Drainage: The Village has taken steps to minimize surface and storm drainage problems. However, definite plans will be needed to provide an integrated system of storm drainage facilities which can be constructed as new

development takes place. The Flood Plain regulations now being considered for adoption will be applied in future industrial areas subject to flooding (see Figure 6-4). This control will forestall the construction of large industrial structures in flood hazard areas, which has happened in the past.

Public Utilities: Operation of the electric, gas and telephone utilities is continually being reinforced to handle normal and anticipated residential and industrial needs.

Streets: With the adoption of the revised Subdivision Ordinance, adequate streets and pavement design will be assured in new industrial subdivisions. However, existing streets--notably, Wheeling Avenue--will have to be improved to provide an all-weather, smooth-surfaced access to all of Wheeling's existing major industrial plants outside the Wheeling Industrial Center. The Village must initiate the improvement of these streets, either as a Village-financed project or by special assessment.

Wheeling is taking action to assure good industrial development. An amendment to the Zoning Ordinance in its final stages of revision will correct some of the existing and potential industrial problems. Among these problems are parking, nuisances of industrial plants, location of industrial activities in proximity to residential areas, and density controls on the development of industrially zoned sites.

Parking: Provision for adequate parking space is being required with the construction of each building. The Zoning Ordinance requires parking spaces sufficient in number to handle all of the motor vehicles of employes and visitors as well as those used in the operation of a business. In addition, an absolute number of spaces is also required, based on the number of employes.

Nuisances: The industrial zoning district regulations contain a basic series of nuisance standards that apply to all industrial districts. However, the "I-1" District prohibits outdoor storage and requires that the smoke, noise, glare, heat, vibration, etc., standards be contained within the property lines. The "I-2" regulations are similar but permit outside storage. The "I-3" regulations

also permit outside storage but increase the limits of the nuisance regulations to the boundaries of the zoning district rather than the boundaries of the site on which the plant is located.

Location: The zoning districts have been designed to provide protection to adjoining residential or public areas. For instance, the "I-3" District may only be used where it adjoins other industrial areas. The "I-1" and "I-2" district regulations provide for additional setbacks of buildings, and an increased setback is required where off-street parking or loading is permitted, where they adjoin or are across the street from residential or public areas.

Density: The density of development is controlled in the proposed amendment by (1) establishing the setback from a street according to street classification, such as major, secondary, or minor, and (2) requiring larger lot sizes and establishing a lower height limit in the "I-1" area, which will normally adjoin residential areas; lot coverage, however, is the same in every district.

Potential growth of industrial activities is indicated. A material growth of such activities is indicated in the future by the following:

1. Wheeling's location in the Chicago Metropolitan area and the midwest region in terms of markets, labor supply, and accessibility of raw material or component parts.

2. Wheeling's location northwest of Chicago in the path of industrial growth.

3. Availability of large tracts of industrially zoned property.

4. Development plans expressed by individual firms and industrial site development planned by realtors in the Wheeling area.

5. Establishment of zoning regulations which are acceptable to industrial land developers.

6. Desire for industry, actively expressed by the Wheeling government administration in working out agreements for the extension of municipal utilities. However, actual growth will be dependent upon availability of these utilities.

7. Increased labor resources from an ever-increasing population with moderate incomes.

8. A continually improving highway transportation network for the movement of goods and employes.

9. Proximity to major transportation facilities, such as O'Hare air field, and to Chicago.

10. Proximity to a wide range of housing within reasonably short commuting time.

11. General desire and need for industrial development in the community.

Future space needs for industry in the entire north, west, and northwestern suburban areas will continue as long as technologies change and the need for more adequate sites with reserve space for expansion and parking continues. (The actual delineation of areas for industrial use will be shown in the Preliminary Planning Report on Future Land Use.)

Future areas designated will tend to be (a) those areas where commitments have been made for industrial use, which locations are not inconsistent with the over-all plan, (b) those areas which because of present development are logical for industrial uses, and (c) areas providing for a moderate expansion of the industrial areas or replacement of areas not suited to industrial development. However, it is anticipated that because of the scattered residential growth within the limits of the Village, any major industrial area will be located outside the present corporate limits.

APPENDIX I

LIST OF CONSULTING MEMORANDUMS
PREVIOUSLY ISSUED RE: INDUSTRIAL DEVELOPMENT

No. 2	Annexation and Zoning of Approximately 400 Acres south of the Village along Soo Line tracks.
No. 5	Industrial District setbacks.
No. 7	Amerline property - Sector maps.
No. 8	References to Industrial setback and intensity studies.
No. 9	Additional background - Industrial setbacks.
No. 17	Various Amendments - Industrial District Regulations.
No. 18	Industrial District Zoning Regulations.
No. 20	Elm Development Corporation - Industrial subdivision.
No. 21	Zoning Board of Appeals, Docket No. 60 (Industrial rezoning request).

NAME OF DISTRICT (Number following name indicates location of district on accompanying map.)	NUMBER OF ACRES	PERCENT OF DEVELOPMENT	APPROXIMATE COST OF LAND PER ACRE (43,560 square feet)	RAILROAD SERVING THE DISTRICT	ELECTRICITY	GAS	WATER	SEWAGE DISPOSAL[a]	REQUIRES SET-BACKS		REQUIRES LANDSCAPING	REQUIRES OFF-STREET PARKING & LOADING	CONTROLS DESIGN & CONSTRUCTION	REQUIRES SCREENING OF OUTDOOR STORAGE	CONTROLS FUMES, ODORS, NOISE, SMOKE, ETC.	LIMITS SIZE & NUMBER OF SIGNS	PROHIBITS RESIDENTIAL CONSTRUCTION	ZONING
ADDISON INDUSTRIAL DISTRICT (20)	100	70%	$13,000-20,000	ICRR	x	x	x	M	x		x	x		x	x	x	Mfg
ALSIP INDUSTRIAL DISTRICT (32)	300	30%	$10,000	BOCT IHB	x	x	x	SD			x			x		x	Ind
ANDERSON'S DES PLAINES DEVELOPMENT (10)	200	5%	$33,000-44,000	CNW CMSP	x	x	x	SD	x	x	x	x	x	x		x	Mfg
ANDERSON'S MANNHEIM & NORTH DEVELOPMENT (18)	12	90%	$44,000	IHB	x	x	x	SD	x	x	x	x	x	x		x	Mfg
ANTIOCH INDUSTRIAL DISTRICT (1)	20	50%	$ 1,500	CMSP	x	x	x	M	x	x	x	x		x		x	CC
BELDEN INDUSTRIAL DISTRICT (20)	80	30%	$20,000-24,000	ICRR	x	x	x	M	x	x	x	x	x	x		x	Ind
BELLWOOD INDUSTRIAL DISTRICT (23)	10	30%	Lease Only	IHB	x	x	x	SD	x	x	x	x	x	x			Mfg
BENSENVILLE INDUSTRIAL DISTRICT (12)	420	9%	$22,000	CMSP	x	x	x	M	x	x	x	x	x	x	x	x	Lt
BRIDGEVIEW INDUSTRIAL DISTRICT (28)	280	5%	$ 7,500	IHB	x	x	x	M						x		x	Ind
BROADVIEW INDUSTRIAL CENTER (24)	#	5%	Lease Only	IHB ICRR	x	x	x	SD	x	x	x	x		x		x	Mfg
BRYNWOOD INDUSTRIAL DISTRICT (9)	8	80%	$65,000-77,000	CNW	x	x	x	SD	x	x	x	x	x	x		x	Mfg
BURLINGTON-NAPERVILLE INDUSTRIAL PARK (45)	470	0%	#	CB&Q	x	x			x	x	x	x	x	x	x	x	Ind
CAL-INDUSTRIAL CENTER (38)	123	19%	#	IHB WRR	x	x	x	M	x	x	x	x	x	x	x	x	Mfg
CAL-SAG INDUSTRIAL DISTRICT (31)	560	7%	$ 8,000	IHB	x	x	x	M	x	x	x	x	x	x	x	x	Ind
CALUMET INDUSTRIAL DISTRICT (35)	120	40%	#	CRIP NPRR	x	x	x	SD	x		x	x		x	x	x	Mfg
CENTEX INDUSTRIAL PARK (11)	1100	37%	$25,000-27,000	CNW CMSP	x	x	x	SD	x	x	x	x	x	x		x	HI
CENTRAL MANUFACTURING DISTRICT (33)	130	85%	$45,000-111,000	CRI	x	x	x	SD	x	x	x	x	x	x	x	x	Mfg
CLEARING INDUSTRIAL DISTRICT (13) (26)	300	50%	$25,000-44,000	CMSP CBRR	x	x	x	SD	x	x	x	x	x	x		x	Ind
DELNOR INDUSTRIAL DISTRICT (51)	52	15%	$ 8,500-9,000	C&GW	x	x	x	M	x	x	x	x		x		x	Mfg
DuPAGE INDUSTRIAL DISTRICT (21)	250	0%	$12,000-17,000	ICRR	x	x	x	M	x	x	x	x	x	x	x	x	HI Lt
EDENS INDUSTRIAL PARK (7)	3	95%	$52,000	----	x	x	x	SD	x		x		x	x	x	x	Lt
ELGIN INDUSTRIAL PARK (52)	103	0%	$ 2,500-16,000	----	x	x	x	M					x	x	x		Lt
ELLSWORTH PARK MANUFACTURING DISTRICT (43)	50	50%	$14,000	CB&Q	x	x	x	M	x	x	x	x	x	x	x	x	Lt
GENEVA INDUSTRIAL DISTRICT (47)	20	65%	$25,000	CNW	x	x	x	M	x	x	x	x	x	x		x	HI
GOVERNOR'S INDUSTRIAL PARK (41)	15	5%	$ 4,000	----	x	x	x	M	x	x	x	x	x	x	x	x	Lt
GREENWOOD INDUSTRIAL PARK (34)	20	30%	Lease Only	NYC	x	x	x	SD	x	x	x	x	x	x		x	Lt
HAMMOND INDUSTRIAL DISTRICT (36)	60	60%	$12,000	BOCT PENN	x	x	x	M	x		x			x		x	HI
HARLEM AVENUE-63rd STREET INDUSTRIAL DISTRICT (25)	33	20%	Lease Only	CBRR IHB	x	x	x	SD	x	x	x	x	x	x		x	Mfg
PARK FOREST INDUSTRY PARK (40)	120	10%	#	MCRR EJ&E	x	x	x	M	x	x	x	x	x	x	x	x	Mfg
JEWEL PARK (5)	33	10%	$10,000	CNW'	x	x	x	M	x	x	x	x	x	x	x		Lt
LAKE-CALIFORNIA DISTRICT (A)	17	0%	#	----	x	x	x	SD			x		x	x		x	Lt
LAKE-MAPLEWOOD DISTRICT (A)	29	0%	#	----	x	x	x	SD			x		x	x		x	Lt
LINCOLNWOOD INDUSTRIAL DISTRICT (8)	9	0%	$77,000-87,000	CNW	x	x	x	SD	x	x	x	x	x	x	x	x	Lt
MEADOWDALE INDUSTRIAL PARK (53)	300	10%	$10,000-17,000	CNW	x	x	x	M	x	x	x	x	x	x		x	Lt HI
MELROSE PARK INDUSTRIAL DISTRICT (17)	0	99%	$37,000	IHB	x	x	x	SD	x	x	x	x		x			Ind
MONTGOMERY INDUSTRIAL DISTRICT (46)	500	3%	#	CB&Q	x	x	x	M	x	x	x	x	x	x	x	x	HI
NORTHLAKE INDUSTRIAL DISTRICT (19)	100	65%	#	CNW	x	x	x	SD	x		x	x	x	x	x	x	Mfg
NORTHWEST INDUSTRIAL DISTRICT (15)	2	80%	$35,000	----	x	x	x	SD	x		x	x		x		x	Lt
NORTHWESTERN INDUSTRIAL PARK (6)	110	30%	$14,000	CNW	x	x	x	SD	x	x	x	x	x	x	x	x	Lt
O'HARE INDUSTRIAL CENTER (14)	3	95%	$30,000-35,000	----	x	x	x	SD	x	x	x	x	x	x		x	Mfg
OAK BROOK INDUSTRIAL PARK (22)	600	5%	$22,000-55,000	----	x		x	M	x	x	x	x	x	x	x	x	Mfg
OAK LAWN INDUSTRIAL PARK (30)	150	20%	$17,000-33,000	IHB BOCT	x	x	x	SD	x	x	x	x		x		x	[illegible]
ROOSEVELT-CLINTON DISTRICT (B)	31	0%	#	----	x	x	x	SD			x		x	x		x	Lt
ROUNDOUT INDUSTRIAL PARK (2)	30	0%	$13,000	CMSP EJ&E	x	x	x	M	x	x	x	x	x	x		x	Lt HI
SANTA FE INDUSTRIAL DISTRICT (27)	300	25%	#	ATSF	x	x		SD				x	x	x			Lt HI
SAUK VILLAGE INDUSTRIAL DISTRICT (39)	300	0%	$ 4,000	EJ&E MCRR	x	x	x	SD									Mfg
SCHILLER PARK INDUSTRIAL DISTRICT (16)	17	25%	$37,000-44,000	----	x	x	x	SD	x	x	x	x	x	x	x	x	Lt
SOUTHEAST INDUSTRIAL DISTRICT (51)	80	6%	$ 4,000-5,000	C&GW	x	x	x	M	x	x	x	x	x	x	x	x	Mfg
SOUTH SHORE INDUSTRIAL DISTRICT (37)	150	25%	$ 5,000-6,000	CSSB	x	x	x	M	x		x			x		x	HI
STREAM & COLE INDUSTRIAL PARK (50)	182	0%	$ 8,000-12,000	C&GW	x	x	x	M	x		x		x	x	x	x	Mfg
TINLEY PARK INDUSTRIAL DISTRICT (42)	275	3%	$ 5,000	CRIP	x	x	x	SD	x	x	x	x	x	x	x		Ind
WABASH INDUSTRIAL DISTRICT (29)	80	0%	$ 3,500-6,000	WRR	x	x	x	SD	x	x	x		x	x			HI
WEST CENTRAL INDUSTRIAL DISTRICT (B)	5	80%	$90,000-163,000	----	x	x	x	SD			x		x	x		x	Lt
WEST CHICAGO INDUSTRIAL DISTRICT (48)	610	0%	#	CNW	x	x			x	x	x		x	x	x	x	Mfg
WEST CHICAGO MANUFACTURING DISTRICT (49)	400	20%	$10,000-20,000	CNW C&GW EJ&E	x	x			x		x	x	x	x			HI
WHEELING INDUSTRIAL CENTER (4)	60	20%	Lease Only	CMSP	x	x	x	SD	x	x	x	x	x	x	x	x	Mfg
WHEELING INDUSTRIAL PARK (3)	60	30%	$ 9,000	CMSP	x	x	x	SD	x	x	x	x	x	x	x	x	Lt
WOODLAND PARK INDUSTRIAL DISTRICT (44)	134	0%	$ 6,000	CB&Q	x	x			x	x	x	x	x	x	x	x	Lt

[a]Sewage disposal is indicated by "M" if municipal, and by "SD" if connected to the Metropolitan Sanitary District.

- Information not available, or withheld as confidential by agents.

Compiled by Industrial Development Division, Chicago Association of Commerce & Industry

Zoning Abbreviations:
CC - County Code
HI - Heavy Industrial
Ind - Industrial
Lt - Light Industrial
Mfg - Manufacturing

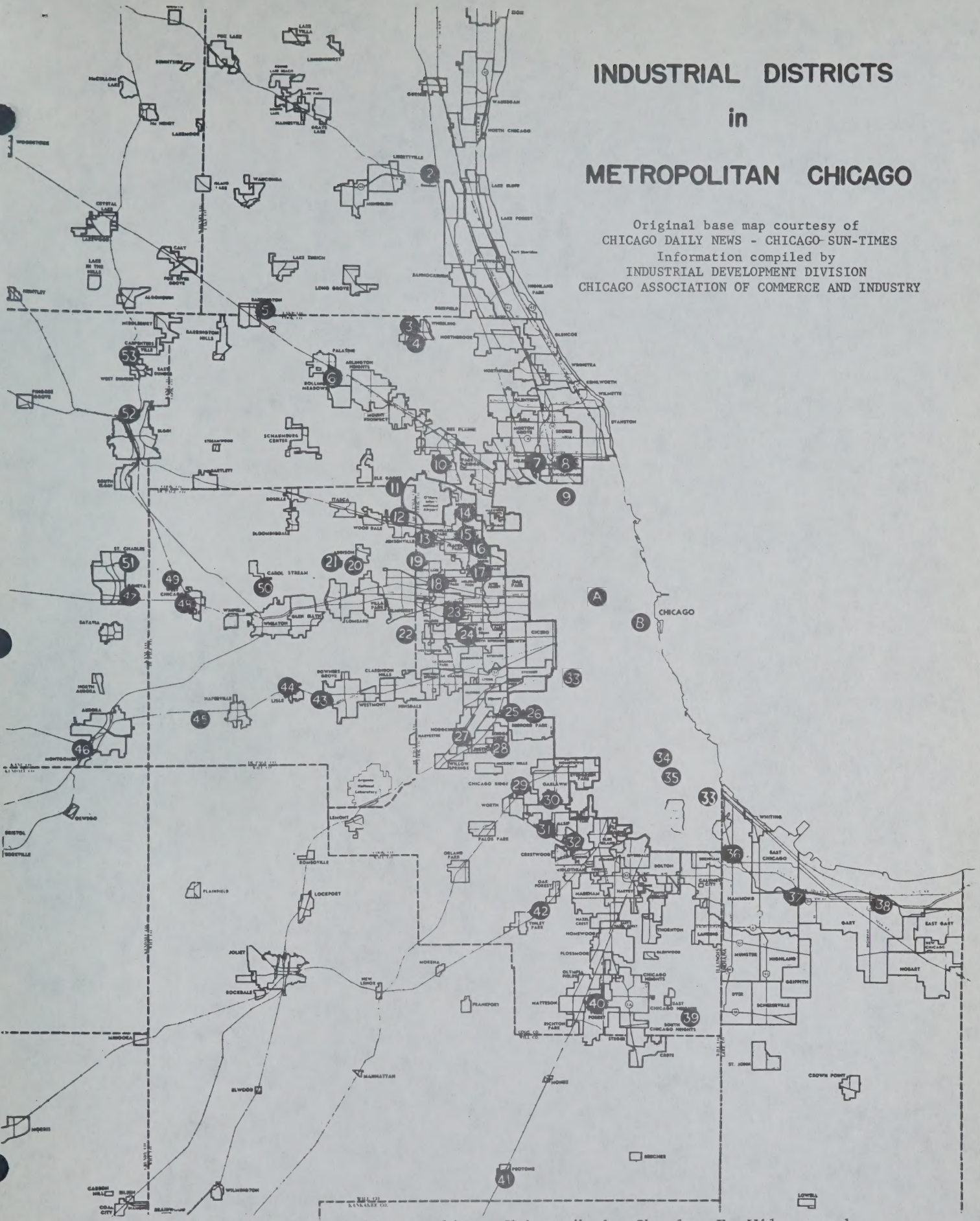
Railroad Abbreviations:
ATSF - Atchison, Topeka & Santa Fe
BOCT - Baltimore & Ohio Chicago Terminal
CBRR - Chicago Belt
CB&Q - Chicago, Burlington & Quincy
C&GW - Chicago & Great Western
CMSP - Chicago, Minneapolis, St. Paul & Pacific
CNW - Chicago & North Western
CRI - Chicago River & Indiana
CRIP - Chicago, Rock Island & Pacific
CSSB - Chicago, South Shore & South Bend
EJ&E - Elgin, Joliet & Eastern
ICRR - Illinois Central
IHB - Indiana Harbor Belt
MCRR - Michigan Central
NPRR - Nickle Plate
NYC - New York Central
PENN - Pennsylvania
WRR - Wabash

' Denotes passenger service only.

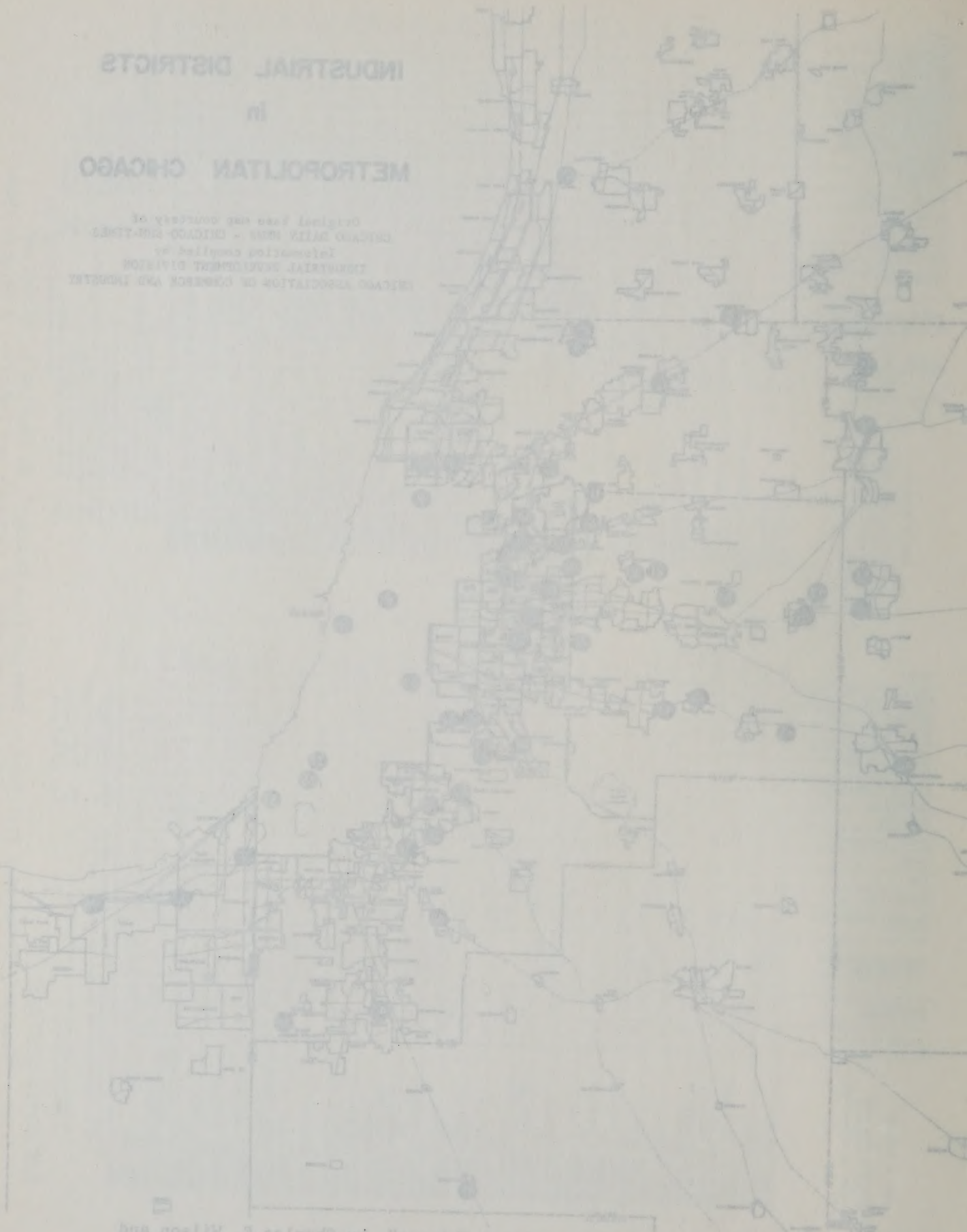
Source: "Industrial Districts in Metropolitan Chicago", by Charles F. Wilson and Robert W. Latta, Chicago Association of Commerce and Industry, 1 October 1960.

INDUSTRIAL DISTRICTS in METROPOLITAN CHICAGO

Original base map courtesy of
CHICAGO DAILY NEWS - CHICAGO SUN-TIMES
Information compiled by
INDUSTRIAL DEVELOPMENT DIVISION
CHICAGO ASSOCIATION OF COMMERCE AND INDUSTRY



Source: "Industrial Districts in Metropolitan Chicago", by Charles F. Wilson and Robert W. Latta, Chicago Association of Commerce and Industry, 1 October 1960.



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